

Digital Design 205: 3D Design

Professor TBA

Meets: TBA

Email: n/a

Office: TBA

Phone: n/a

Course description:

This course introduces students to three-dimensional design through a series of informative readings, enlightening gallery/museum visits, and by means of design projects exploring the issues and techniques discovered. Particular attention will be paid to the importance of forms and objects in space and time, how three-dimensional constructs inform, and how they dialogue with the world around them.

Course objectives:

By the end of the course, students will have gained:

- An understanding of orthographic representations & their creation
- A greater awareness of line and point
- Problem solving methodology for 3D Design
- Awareness of spatial principles
- Awareness of planes and their use in spatial design
- A greater awareness of color use
- An understanding of the use of structure in 3D Design
- An understanding of the use of light & texture in 3D Design
- A greater awareness of mass and volume
- An understanding of the use of structure & Force
- An introduction to joining and construction techniques as they apply to 3D Design

Credit Hours:

3 hours

Pre-requisites:

- VPA121– Painting & Drawing I
- DD101 – Introduction to The Digital Toolbox
- DD105 – 2D Design

Required readings:

Principles of Three-Dimensional Design – Objects, Space, and Meaning by Stephen Lueking

Strongly suggested:

While this class has not been designated as 'web-enhanced,' it is strongly urged that students wishing to take full advantage of the class have:

- Some familiarity with the Internet;
- Access to the Internet from home or elsewhere
- An active email account.

Due dates:

Late assignments will not be accepted without a physician or counselor's note.

Grading:

Projects	90
Participation	10
Total	100

Grades:

90-100	A
80-89	B
70-79	C
60-69	D
0-50	F

There is no R grade in this course.

3D Design (3DD) assignments:

This course will be an organic mix of lecture and practice with the professor working to explain the concepts, give examples, and also oversee how well students grasp the concepts discussed as they work on assigned projects. 10% of the grade will be based on engagement and consistent attendance. The balance of the grade will be determined by thirteen design critiqued exercises and a final portfolio presentation.

Assignment	Type	Date	Graded Points
Orthographic Study	Take-home / in class	EX1	20
Kit Assemblage Part 1	Take-home / in class	EX2	5
Kit Assemblage Part 2	Take-home / in class	EX3	5
Kit Assemblage Part 3	Take-home / in class	EX4	10
Kit Assemblage Part 4	Take-home / in class	EX5	10
Tensegrity Project	Take-home / in class	EX6	20
Form & Shadow	Take-home / in class	EX7	20
Total			90

Notes on the grading criteria:

Work will be evaluated according to the following criteria:

- Understanding and interpretation of readings
- Aesthetic and execution of projects
- Research and Analysis of related issues
- Contribution to in-class discussion

The 3DD assignments:

What follows are brief descriptions of the 3DD assignments students will be doing over the course of the term. Detailed instructions will be provided in-class for each exercise. Without a physician or counselor's note, late assignments will not be accepted and so will receive a grade of 0.

Orthographic study:

Develop orthographic studies with digital photographs, then with first free hand (pencil or pen) sketches, and finally with digital illustrations using Illustrator. The subject of your orthographic study should be of an everyday object in your home. This should not be a simple geometric shape such as a soup can or a photo cube, but must asymmetrical.

Kit Assemblage (Four parts)

Develop a three-dimensional design for a structure or device made up of ten or more individual parts. These should be simple geometric elements making up a more complex design form. The Assemblage should be developed in four stages:

- Stage 1 – Design Proposal – single paragraph proposal with concept sketches of design and individual elements
- Stage 2 – Digital parts list – digital renderings of the kit parts of your design labeled and organized.
- Stage 3 – Orthographic views of kit parts and final construct
- Stage 4 – Digital information board of the kit

Tensegrity Project

Design and sketch a tensegrity structure. The structure should have no less than six compression units in its design. Once sketches are completed, build the structure using everyday objects such as drinking straws for compression units and thread for tension lines.

Form & Shadow

Design a form using techniques we have discussed in class. The form should be free standing, conceptual in form, and be skinned with a clear or opaque surface allowing light to pass through the structure. Strong consideration of the form's shadow is expected, as its shape and execution will be a large part of the project's grade. What does the shadow say and why? How does it dialogue with the form it shadows?

Participation:

A student's participation grade is based primarily on their attendance and participation in class. Every student begins the term with 10 participation points. Attendance is mandatory for every single scheduled class. For each class missed, 3 participation points will be deducted. Tardy students will have 2 participation points deducted. More than three absences amount to a failure, as a student may not earn less than 0 participation points.

Academic policies (from Catalogue):

Hostos Community College believes that developing student's abilities to think through issues and problems by themselves is central to the educational process. Since the Hostos College degree signifies that the student knows the material s/he has studied, and the practice of academic dishonesty results in grades or scores that do not reflect how much or how well the student has learned, understood, or mastered the material, the College will investigate any form of academic dishonesty brought to its attention. If the charge of academic dishonesty is proved, the College will impose sanctions. The three most common forms of academic dishonesty are cheating, plagiarism, and bribery.

Cheating (from Catalogue):

In the collegiate setting, cheating is defined as the purposeful misrepresentation of another's work as one's own. Faculty and students alike are responsible for upholding the integrity of this institution by not participating either directly or indirectly in act of cheating and by discouraging others from doing so.

Plagiarism (from Catalogue):

Plagiarism is a form of cheating which occurs when persons, even if unintentionally, fail to acknowledge appropriately the sources for the ideas, language, concepts, inventions, etc. referred to in their own work. Thus, any attempt to claim another's intellectual or artistic work as one's own constitutes an act of plagiarism.

Bribery (from Catalogue):

In the collegiate setting, bribery involves the offering, promising, or giving of items of value, such as money or gifts, to a person in a position of authority, such as a teacher, administrator, or staff member, so as to influence his/her judgment or conduct in favor of the student. The offering of sexual favors in exchange for a grade, test score, or other academic favor, shall be considered attempted bribery. The matter of sexual favors, either requested or offered, in exchange for a grade, test score or other academic favor, shall also be handled as per the Sexual Harassment procedures of the College.

College attendance policy (from Catalogue):

Students are expected to attend all class meetings in the courses for which they are registered. Classes begin at the times indicated in the official schedule of classes. Arrival in class after the scheduled starting time constitutes lateness.

The maximum number of absences is limited to 15% of the number of scheduled class hours per semester and a student absent more than the indicated 15% is deemed excessively absent. Attendance is monitored from the first official day of classes. In the case of excessive absences or lateness, the instructor has the right to lower the grade, assign a failing grade, or assign additional written work or readings.

Absences due to late registration, to a change of program, or to extenuating circumstances will be considered by the instructor on an individual basis. Each department and program may specify in writing a different attendance policy. Instructors are required to keep an official record of student attendance and inform each class of the College's or department attendance policy.

NOTE:

- Any work missed during any period of absence must be made up by the student.
- To meet financial aid criteria, a student must attend class at least once in the first three weeks and once in either the fourth or fifth week of class.

Course schedule:

Readings must be completed for each class. Not all assigned texts will be discussed in class or covered in the class lectures.

CLASS	CTD Project Due	ROOM	TOPIC	READ FOR TODAY
1		TBA	Discussion: Class Introduction Materials Orthographic views	No Reading
2		TBA	Discussion: Approaching Design	Lueking Chapter One
3	EX1	TBA	Discussion: Form & Point of View	Lueking Chapter Two
4	EX 2	TBA	Discussion: Plane & Space	Lueking Chapter Three
5	EX 3	TBA	Discussion: Structure & Proportion	Lueking Chapter Four
6		TBA	Discussion: Structure continued	Lueking Chapter Nine
7	EX 4	TBA	Discussion: Light & Texture	Lueking Chapter Five
8		TBA	Discussion: Mass & Void Gallery visit	Lueking Chapter Six
9	EX 5	TBA	Discussion: Line & Point	Lueking Chapter Seven
10		TBA	Discussion: Material	Lueking Chapter Eight
11	EX 6	TBA	Discussion: Time	Lueking Chapter Ten
12		TBA	Discussion: Environment	Lueking Chapter Eleven
13		TBA	Discussion: Form and Shadow Project	No reading
14		TBA	Discussion: Gallery visit	No reading
15	EX7	TBA	Final Presentation & Critique	No reading

COURSE ID	-
PASSWORD	-